NOTIFICATION OF ADDENDUM

ADDENDUM NO. 2

DATED 10/08/2007

Control	**0024-08-122, ETC.**
Project	**BR 2006(491), ETC.**
Highway	**US 90**
County	**BEXAR**

Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an adendum notification which details the changes and the respective proposal pages which were added and/ or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped “This Proposal Issued for Informational Purposes.”

You are required to acknowledge receipt of this addendum on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

04/99

SUBJECT: PLANS AND PROPOSAL ADDENDUMS

PROJECT: BR 2006(491) CONTROL: 0024-08-122
COUNTY: BEXAR
LETTING: 10/09/2007
REFERENCE NO: 1008

PROPOSAL ADDENDUMS

_ PROPOSAL COVER
X BID INSERTS (SH. NO.: 2-15, 3-15, 6-15, 9-15, 11-15, 14-15, 15-15)
X GENERAL NOTES (SH. NO.: F, G)
X SPEC LIST (SH. NO.: 4-4)
_ SPECIAL PROVISIONS:
ADDED:

DELETED:

X SPECIAL SPECIFICATIONS:
ADDED: 6834

DELETED:

X OTHER: PLAN SHEETS (INCLUDING E&Q)

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

BID INSERTS-
****

REVISED QUANTITY FOR THE FOLLOWING ITEMS: 160-2003, 168-2001, 540-2006, 620-2004, 620-2006, 620-2008

REMOVED THE FOLLOWING BID ITEMS: 340-2034, 496-2017, 496-2025, 6110-2004

ADDED THE FOLLOWING BID ITEMS: 341-2034, 341-2048, 545-2001, 545-2003, 6834-2002

BID INSERTS 2-15, 3-15, 6-15, 9-15, 11-15, 14-15, AND 15-15 CHANGED AS A RESULT OF THE ABOVE QUANTITY CHANGES

GENERAL NOTES-
****

SHEETS F & G: REVISED THE NOTES TO ITEM 168 WITH NEW VEGETATIVE WATERING REQUIREMENTS

DESCRIPTION OF ABOVE CHANGES (CONTINUED)
(INCLUDING PLANS SHEET CHANGES)

SPEC LIST-
****

ADDED SPECIAL SPECIFICATION 6834

SHEC LIST SHEET 4-4 CHANGED AS A RESULT OF THE ABOVE SPEC LIST CHANGE

PLAN SHEETS-
****

SHEET 2: REVISED INDEX TO INCLUDE NEW STANDARD SHEET

SHEET 6: REVISED PAVEMENT DETAIL "A" AND DETAIL "B"

SHEETS 7, 8, 10: REVISED QUANTITY SUMMARY SHEETS

SHEETS 15C & 15D: REVISED GENERAL NOTES TO ITEM 168

SHEETS 15I-15L: REVISED E&Q SHEETS TO REFLECT QUANTITY CHANGES

SHEET 16: REVISED TYPOGRAPHIC ERRORS

SHEET 91: REVISED SUZETTE AVENUE TYPICAL SECTION

SHEET 112A: ADDED STANDARD SHEET QUAD(N)-99

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	100	2002	001	PREPARING ROW DOLLARS and CENTS	STA	74.000	1
	104	2009		REMOVING CONC (RIPRAP) DOLLARS and CENTS	SY	2,270.000	2
	104	2011		REMOVING CONC (MEDIANS) DOLLARS and CENTS	SY	574.000	3
	104	2015		REMOVING CONC (SIDEWALKS) DOLLARS and CENTS	SY	265.000	4
	104	2017		REMOVING CONC (DRIVEWAYS) DOLLARS and CENTS	SY	235.000	5
	104	2021		REMOVING CONC (CURB) DOLLARS and CENTS	LF	1,327.000	6
	104	2032		REMOVING CONC (WHEELCHAIR RAMP) DOLLARS and CENTS	SY	18.000	7
	105	2008		REMOVING STAB BASE AND ASPH PAV (6") DOLLARS and CENTS	SY	1,091.000	8
	105	2019		REMOVING STAB BASE & ASPH PAV(14") DOLLARS and CENTS	SY	11,795.000	9
	106	2001		OBLITERATING ABANDONED ROAD DOLLARS and CENTS	STA	8.000	10
	110	2001		EXCAVATION (ROADWAY) DOLLARS and CENTS	CY	20,854.200	11

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	132	2004		EMBANKMENT (FINAL)(DENS CONT)(TY B) DOLLARS and CENTS	CY	7,616.400	12
	160	2003		FURNISHING AND PLACING TOPSOIL (4") DOLLARS and CENTS	SY	36,712.400	13
	161	2005	001	COMPOST MANUF TOPSOIL (PB) (4") DOLLARS and CENTS	SY	6,087.300	14
	162	2002		BLOCK SODDING DOLLARS and CENTS	SY	6,087.300	15
	164	2039		DRILL SEEDING (PERM) (URBAN) (CLAY) DOLLARS and CENTS	SY	36,712.400	16
	164	2047		STRAW/HAY MLCH SEED(TEMP)(WARM) DOLLARS and CENTS	SY	21,399.800	17
	164	2049		STRAW/HAY MLCH SEED(TEMP)(COOL) DOLLARS and CENTS	SY	21,399.800	18
	168	2001		VEGETATIVE WATERING DOLLARS and CENTS	MG	572.700	19
	247	2044	020	FL BS (CMP IN PLC)(TY A GR 4)(FNAL POS) DOLLARS and CENTS	CY	6,273.300	20
	275	2001		CEMENT DOLLARS and CENTS	TON	589.300	21
	275	2025		CEM TRT (MX EXST MTL & NW BS)(DC)(6") DOLLARS and CENTS	SY	14,115.000	22

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	310	2002		PRIME COAT (AE-P) DOLLARS and CENTS	GAL	4,234.500	23
	316	2020		ASPH (AC-5 OR AC-10) DOLLARS and CENTS	GAL	4,234.500	24
	316	2172		AGGR(TY-B GR-3 SAC-B) DOLLARS and CENTS	CY	141.200	25
	341	2034		D-GR HMA(QCQA) TY-C PG64-22 DOLLARS and CENTS	TON	1,887.200	26
	341	2048		D-GR HMA(QCQA) TY-C SAC-B PG70-22 DOLLARS and CENTS	TON	1,887.200	27
	354	2021		PLANE ASPH CONC PAV(0" TO 2") DOLLARS and CENTS	SY	1,780.000	28
	360	2018	003	CURB (TYPE II) DOLLARS and CENTS	LF	2,659.000	29
	400	2005		CEM STABIL BKFL DOLLARS and CENTS	CY	24.000	30
	402	2001		TRENCH EXCAVATION PROTECTION DOLLARS and CENTS	LF	69.500	31
	416	2001	001	DRILL SHAFT (18 IN) DOLLARS and CENTS	LF	102.000	32
	416	2004	001	DRILL SHAFT (36 IN) DOLLARS and CENTS	LF	785.000	33

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	416	2016	001	DRILL SHAFT (SIGN MTS)(12 IN) DOLLARS and CENTS	LF	7.000	34
	416	2018	001	DRILL SHAFT (SIGN MTS)(24 IN) DOLLARS and CENTS	LF	39.000	35
	416	2024	001	DRILL SHAFT (HIGH MAST POLE)(48 IN) DOLLARS and CENTS	LF	174.000	36
	416	2029	001	DRILL SHAFT (RDWY ILL POLE) (30 IN) DOLLARS and CENTS	LF	50.000	37
	420	2003	003	CL C CONC (ABUT) DOLLARS and CENTS	CY	64.200	38
	420	2004	003	CL C CONC (BENT) DOLLARS and CENTS	CY	198.700	39
	420	2033	003	CL S CONC (APPR SLAB) DOLLARS and CENTS	CY	70.000	40
	422	2001		REINF CONC SLAB DOLLARS and CENTS	SF	11,760.000	41
	423	2001		RETAINING WALL (MSE) DOLLARS and CENTS	SF	1,045.600	42
	425	2004		PRESTR CONC BEAM (TY IV) DOLLARS and CENTS	LF	1,674.920	43
	428	2001		CONC SURF TREAT (CLASS I) DOLLARS and CENTS	SY	1,679.000	44

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	432	2001		RIPRAP (CONC)(4 IN) DOLLARS and CENTS	CY	398.600	45
	432	2016		RIPRAP (STONE COMMON)(DRY)(8 IN) DOLLARS and CENTS	CY	6.300	46
	432	2040		RIPRAP (MOW STRIP)(5 IN) DOLLARS and CENTS	CY	26.700	47
	432	2048		RIPRAP (CONC)(FLUME) DOLLARS and CENTS	CY	3.300	48
	442	2005	005	STR STL (MISCELLANEOUS) DOLLARS and CENTS	LB	666.000	49
	450	2006		RAIL (TY T411) DOLLARS and CENTS	LF	916.000	50
	450	2077		RAIL (HANDRAIL)(TY F) DOLLARS and CENTS	LF	132.000	51
	454	2001		SEALED EXPANSION JOINT (4 IN)(SEJ-A) DOLLARS and CENTS	LF	111.000	52
	462	2001		CONC BOX CULV (3 FT X 2 FT) DOLLARS and CENTS	LF	81.200	53
	464	2003		RC PIPE (CL III)(18 IN) DOLLARS and CENTS	LF	285.500	54
	464	2005		RC PIPE (CL III)(24 IN) DOLLARS and CENTS	LF	474.000	55

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	465	2001	001	INLET (COMPL)(TY C) DOLLARS and CENTS	EA	3.000	56
	465	2008	001	INLET EXT (TY E) DOLLARS and CENTS	EA	3.000	57
	465	2335	001	INLET (COMPL)(TY H)(3 GRATE) DOLLARS and CENTS	EA	1.000	58
	465	2474	001	INLET EXT (TY C-E) DOLLARS and CENTS	EA	1.000	59
	466	2047		WINGWALL (PW)(HW=3 FT) DOLLARS and CENTS	EA	1.000	60
	467	2151		SET (TY I)(S= 3 FT)(HW= 3 FT)(6:1)(C) DOLLARS and CENTS	EA	2.000	61
	467	2286		SET (TY II)(18 IN)(RCP)(6:1)(P) DOLLARS and CENTS	EA	8.000	62
	467	2288		SET (TY II)(24 IN)(RCP)(6:1)(P) DOLLARS and CENTS	EA	2.000	63
	496	2010		REMOV STR (BRIDGE 100-499 FT LENGTH) DOLLARS and CENTS	EA	1.000	64
	500	2001	002	MOBILIZATION DOLLARS and CENTS	LS	1.000	65

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	502	2001	022	BARRICADES, SIGNS AND TRAFFIC HANDLING DOLLARS and CENTS	MO	16.000	66
	506	2004	010	ROCK FILTER DAMS (INSTALL) (TY 4) DOLLARS and CENTS	LF	141.000	67
	506	2009	010	ROCK FILTER DAMS (REMOVE) DOLLARS and CENTS	LF	141.000	68
	506	2016	010	CONSTRUCTION EXITS (INSTALL) (TY 1) DOLLARS and CENTS	SY	700.600	69
	506	2019	010	CONSTRUCTION EXITS (REMOVE) DOLLARS and CENTS	SY	700.600	70
	506	2026	010	FRNT END LOADER WORK (ERSN & SEDM CONT) DOLLARS and CENTS	HR	96.000	71
	506	2031	010	SANDBAGS FOR EROSION CONTROL DOLLARS and CENTS	EA	36.000	72
	506	2034	010	TEMPORARY SEDIMENT CONTROL FENCE DOLLARS and CENTS	LF	6,305.200	73
	508	2002		CONSTRUCTING DETOURS DOLLARS and CENTS	SY	378.000	74
	512	2002	001	PORT CTB (FUR & INST)(SAFETY SH)(TY 2) DOLLARS and CENTS	LF	1,857.000	75

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	512	2038	001	PORT CTB (REMOVE)(SAFETY SH)(TY 2) DOLLARS and CENTS	LF	1,857.000	76
	529	2026		CONC CURB (ARMOR CURB SLOT) DOLLARS and CENTS	LF	154.000	77
	530	2010		DRIVEWAYS (CONC) DOLLARS and CENTS	SY	427.000	78
	530	2011		DRIVEWAYS (ACP) DOLLARS and CENTS	SY	1,399.000	79
	531	2006		CURB RAMPS (TY 2) DOLLARS and CENTS	EA	3.000	80
	531	2010		CURB RAMPS (TY 7) DOLLARS and CENTS	EA	18.000	81
	531	2011		CURB RAMPS (TY 8) DOLLARS and CENTS	EA	3.000	82
	531	2017		CURB RAMPS (TY 21) DOLLARS and CENTS	EA	3.000	83
	531	2035		CONCRETE SIDEWALKS (5')(4") DOLLARS and CENTS	LF	7,804.000	84
	531	2039		CONC SIDEWALKS (5')(1'6") (BRIDGE) DOLLARS and CENTS	LF	168.000	85
	531	2041		CURB RAMPS (TY 10) DOLLARS and CENTS	EA	28.000	86

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	536	2004		CONC DIRECTIONAL ISLAND DOLLARS and CENTS	SY	1,163.000	87
	540	2001		MTL W-BEAM GD FEN (TIM POST) DOLLARS and CENTS	LF	925.000	88
	540	2002		MTL W-BEAM GD FEN (STEEL POST) DOLLARS and CENTS	LF	696.000	89
	540	2005		TERMINAL ANCHOR SECTION DOLLARS and CENTS	EA	7.000	90
	540	2006		MTL BEAM GD FEN TRANSITION DOLLARS and CENTS	EA	2.000	91
	542	2001		REMOVING METAL BEAM GUARD FENCE DOLLARS and CENTS	LF	3,680.000	92
	542	2002		REMOVING TERMINAL ANCHOR SECTION DOLLARS and CENTS	EA	8.000	93
	544	2001		GUARDRAIL END TREATMENT (INSTALL) DOLLARS and CENTS	EA	7.000	94
	544	2003		GUARDRAIL END TREATMENT (REMOVE) DOLLARS and CENTS	EA	5.000	95
	545	2001		CRASH CUSH ATTEN (INSTL) DOLLARS and CENTS	EA	2.000	96
	545	2003		CRASH CUSH ATTEN (REMOVE) DOLLARS and CENTS	EA	2.000	97

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	550	2009		CHAIN LINK FENCE (INSTALL)(4') DOLLARS and CENTS	LF	1,880.000	98
	610	2032		INS RD IL AM (TY SA) 50S-10 (.4 KW)S DOLLARS and CENTS	EA	1.000	99
	610	2038		INS RD IL AM (TY SA) 50T-10 (.4 KW)S DOLLARS and CENTS	EA	4.000	100
	610	2059		INS RD IL AM (U/P) (TY IF) (.15KW) DOLLARS and CENTS	EA	2.000	101
	610	2072		REMOVE RDWY ILL ASSEM DOLLARS and CENTS	EA	2.000	102
	613	2001		HI MST IL POLE (100 FT) (80 MPH) DOLLARS and CENTS	EA	6.000	103
	614	2001		HI MST IL ASM(12-400 WATT)(ASYM)(TY A) DOLLARS and CENTS	EA	6.000	104
	618	2012		CONDT (PVC) (SCHD 40) (1") DOLLARS and CENTS	LF	4,645.000	105
	618	2013		CONDT (PVC) (SCHD 40) (1") (BORE) DOLLARS and CENTS	LF	55.000	106
	618	2018		CONDT (PVC) (SCHD 40) (2") DOLLARS and CENTS	LF	3,726.000	107
	618	2019		CONDT (PVC) (SCHD 40) (2") (BORE) DOLLARS and CENTS	LF	129.000	108

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	618	2024		CONDT (PVC) (SCHD 40) (4") DOLLARS and CENTS	LF	181.000	109
	618	2034		CONDT (PVC) (SCHD 80) (2") DOLLARS and CENTS	LF	370.000	110
	618	2046		CONDT (RM) (1") DOLLARS and CENTS	LF	205.000	111
	620	2004	001	ELEC CONDR (NO. 2) INSULATED DOLLARS and CENTS	LF	840.000	112
	620	2006	001	ELEC CONDR (NO. 3) INSULATED DOLLARS and CENTS	LF	5,700.000	113
	620	2008	001	ELEC CONDR (NO. 4) INSULATED DOLLARS and CENTS	LF	8,070.000	114
	620	2012	001	ELEC CONDR (NO. 8) INSULATED DOLLARS and CENTS	LF	14,715.000	115
	624	2007		GROUND BOX TY A (122311) DOLLARS and CENTS	EA	21.000	116
	628	2158		REMOVE ELECTRICAL SERVICES DOLLARS and CENTS	EA	2.000	117
	628	2255		ELC SRV TY C 240/480 200 (SS)SS(E)SF(O) DOLLARS and CENTS	EA	2.000	118
	636	2001		ALUMINUM SIGNS (TY A) DOLLARS and CENTS	SF	42.000	119

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	636	2002		ALUMINUM SIGNS (TY G) DOLLARS and CENTS	SF	352.300	120
	636	2008		REPLACE EXISTING ALUMINUM SIGNS (TY G) DOLLARS and CENTS	SF	143.800	121
	636	2009		REPLACE EXISTING ALUMINUM SIGNS (TY O) DOLLARS and CENTS	SF	820.300	122
	644	2022		INS SM RD SN SUP&AM TY S80(1) SA(P) DOLLARS and CENTS	EA	48.000	123
	644	2025		INS SM RD SN SUP&AM TY S80(1) SA(T) DOLLARS and CENTS	EA	1.000	124
	644	2060		REMOVE SM RD SN SUP & AM DOLLARS and CENTS	EA	63.000	125
	647	2001		INSTALL LRSS (STRUCT STEEL) DOLLARS and CENTS	LB	1,794.000	126
	647	2002		RELOCATE LRSA DOLLARS and CENTS	EA	1.000	127
	647	2003		REMOVE LRSA DOLLARS and CENTS	EA	5.000	128
	650	2173		REMOVE OVERHD SIGN SUP DOLLARS and CENTS	EA	1.000	129

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	658	2255		INSTL DEL ASSM (D-SW)SZ 2(WC) GND DOLLARS and CENTS	EA	13.000	130
	658	2258		INSTL DEL ASSM (D-SW)SZ (TYC)CTB DOLLARS and CENTS	EA	4.000	131
	658	2277		INSTL DEL ASSM (D-SY)SZ (TYC)CTB DOLLARS and CENTS	EA	4.000	132
	658	2315		INSTL OM ASSM (OM-2Y)(WC) GND DOLLARS and CENTS	EA	2.000	133
	662	2001		WK ZN PAV MRK NON-REMOV (W) 4" (BRK) DOLLARS and CENTS	LF	690.000	134
	662	2004		WK ZN PAV MRK NON-REMOV (W) 4" (SLD) DOLLARS and CENTS	LF	6,373.000	135
	662	2016		WK ZN PAV MRK NON-REMOV (W) 24" (SLD) DOLLARS and CENTS	LF	120.000	136
	662	2032		WK ZN PAV MRK NON-REMOV (Y) 4" (SLD) DOLLARS and CENTS	LF	7,135.000	137
	668	2021		PREFAB PAV MRK TY A (W) (ARROW) DOLLARS and CENTS	EA	3.000	138
	668	2031		PREFAB PAV MRK TY A (W) (WORD) DOLLARS and CENTS	EA	3.000	139
	672	2015		REFL PAV MRKR TY II-A-A DOLLARS and CENTS	EA	4.000	140

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	672	2017		REFL PAV MRKR TY II-C-R DOLLARS and CENTS	EA	164.000	141
	677	2001		ELIM EXT PAV MRK & MRKS (4") DOLLARS and CENTS	LF	3,583.200	142
	677	2003		ELIM EXT PAV MRK & MRKS (8") DOLLARS and CENTS	LF	117.100	143
	678	2001		PAV SURF PREP FOR MRK (4") DOLLARS and CENTS	LF	4,707.000	144
	678	2003		PAV SURF PREP FOR MRK (8") DOLLARS and CENTS	LF	193.700	145
	678	2006		PAV SURF PREP FOR MRK (24") DOLLARS and CENTS	LF	215.000	146
	6110	2001	008	REF PAV MRK TY I (W)(4")(BRK)(90 MIL) DOLLARS and CENTS	LF	1,102.700	147
	6110	2002	008	REF PAV MRK TY I (W)(4")(SLD)(90 MIL) DOLLARS and CENTS	LF	7,630.500	148
	6110	2003	008	REF PAV MRK TY I (W)(8")(SLD)(90 MIL) DOLLARS and CENTS	LF	1,724.700	149
	6110	2005	008	REF PAV MRK TY I (W)(24")(SLD)(90 MIL) DOLLARS and CENTS	LF	653.200	150
	6110	2006	008	REF PAV MRK TY I (Y)(4")(BRK)(90 MIL) DOLLARS and CENTS	LF	65.800	151

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	6110	2007	008	REF PAV MRK TY I (Y)(4")(SLD)(90 MIL) DOLLARS and CENTS	LF	6,575.300	152
	6110	2111	008	REF PAV MRK SEALER (8") DOLLARS and CENTS	LF	193.700	153
	6110	2113	008	REF PAV MRK SEALER (24") DOLLARS and CENTS	LF	165.000	154
	6110	2114	008	REF PAV MRK SEALER (4") DOLLARS and CENTS	LF	4,707.000	155
	6834	2002		PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	EA	2.000	156
	6943	2001		REM HIGH MAST ILLUMINATION TRUSS TOWER DOLLARS and CENTS	EA	6.000	157
	6965	2001		REMOVE EXIST FIB OPT DMS SYS (TY-3) DOLLARS and CENTS	EA	1.000	158

************GENERAL NOTES************

Grading Requirements For: Item 247 Flex Base (TY A GR 4)							Soil Constants			Wet Ball Mill
	1 ¾"	1 ¼"	7/8"	3/8"	#4	#40	LL Max	PI Max	PI Min	Max
Percent retained on each sieve										
(247)	0-10	-	-	-	45-75	68-85	45	15	N/A	*55

* The maximum increase in material passing the no. 40 sieve shall not exceed 20.

========== **Compaction Requirements** ==========

Item	Material	Course	Density
247	Flex Base	All	98 % Minimum

========== **Basis of Estimate** ==========

Item	Description	Rate/Area	Quant-Unit
	Vegetative Watering	Refer to Item 168 below	
310	Prime Coat (AE-P)	0.3 gal/sy	4206.2 gal

- The Following Is For Information Only - Non Pay-

	Fertilizer (13-13-13)	Refer to Item 166 below

========== **Asphalt Concrete Pavement** ==========

Type	Location	Depth	Rate/Area	Area	Quant-Tons
D-GRHMA(TY C)(BASE)(PG64-22)	FR,Old Hwy 90	2 IN	110 lbs/sy/in	18127.2sy	1993 tons
D-GRHMA(TY C)(SURF)(PG64-22)	FR,Old Hwy 90	2 IN	110 lbs/sy/in	14020.7sy	1542 tons

========== **Surface Treatment Data** ==========

Description	One Course
Area	14020.7 sy

-----See Bid Item-----

asph—type	AC-5 or AC-10
asph--rate(gal/sy)	0.3 gal/sy = 4206.2 gal
aggr--type/gr	ty B/gr 3
aggr--rate(cy/sy)	1 cy/100 sy = 140.2 cy

Call TxDOT (TRANSGUIDE) prior to construction operations. The contractor is hereby alerted to the presence of fiber optic cables associated with the TxDOT Traffic Management System within the project limits.

The following State, District, Local and/or Utility Standards have been modified:
SMD(2-5)-95(MOD).

Call the Texas One Call System at 1-800-245-4545 to locate utilities prior to construction.

Steel Wrapped or Asbestos Utility Lines:

Existing steel wrapped natural gas and/or asbestos cement (AC) water lines that will no longer be in service are usually abandoned in place (AIP). However, if any of these lines have to be removed for whatever reason (in the way of other construction, to make tie-ins, etc.) comply with all federal, state and local laws, ordinances and regulations regarding the management of these materials. At a minimum:

1. Contact the Engineer.

2. Remove the minimum amount of pipe needed to perform the proposed work.

3. Cover and secure the ends of the pipe with a double layer of 6 mil plastic. If the pipe is damaged, cover the entire pipe.

4. Move the pipe to an approved temporary site within the project.

5. The Engineer will determine the owner (utility company) of the pipe and will coordinate removal from the project. The contractor will load the pipe onto the removal vehicles but will NOT be responsible for removing the pipe from the project.

6. Removal of the pipe from the trench is subsidiary to the work that created the need for the removal (excavation for structures, roadway, a new line, tie-ins, etc.). The work performed in handling the pipe after it has been removed from the trench (covering with plastic, hauling to the temporary site and later loading on to the disposal vehicles will be paid for through the Force Account procedure.

Contact the Engineer or the City when construction operations are within 400 feet of a signalized intersection to determine/verify the location of loop detectors, conduit, ground-boxes, etc. Repair or replace any signal equipment damaged by construction operations. The method of repair or replacement shall be pre-approved and inspected. Depending on the type and extent of the damage, the Engineer reserves the right to perform the repair or replacement work and the Contractor will be billed for this work.

Remove existing raised pavement markings as the work progresses or as approved. This work is subsidiary to the various bid items. Properly dispose materials removed.

To better fit field conditions, the cross sections may be varied when approved.

If there are waste areas or material source areas, follow the Texas Aggregate Quarry and Pit Safety Act requirements.

Any materials removed and not reused and determined to be salvageable shall be stored within the project limits at an approved location or delivered undamaged to the storage yard as directed. Properly dispose unsalvageable materials in accordance with local, state, and federal regulations. Deface traffic signs so that they will not reappear in public as signs.

In preparing holes for posts and/or foundations, take care to not rupture existing drainage structures, electrical conduits, public utilities, etc.

Any sign panels that are adjusted or removed and replaced, shall be done the same workday unless otherwise approved.

Notify the Engineer at least two weeks prior to a proposed traffic pattern change(s) that will require a revision to traffic signals.

--Item 5--
Reference all existing striping and other pavement markings to allow these markings to be re-established. Ensure the markings (lane lines, edge lines, ramp gores, etc.) are in line with signs, TMS arrows, etc. located on overhead sign supports.

Taper ACP placed at curb inlets, traffic inlets and slotted drains.

When a bridge deck is milled, seal coated and overlaid, remove excess material. Do not just broom to the sides of the bridge, under guardrail, etc. Cover or protect all sealed expansion joints and rails on bridges and all railroad tracks encountered as approved. Clean all of these features if they weren't properly protected. This work is subsidiary work to applicable bid items.

Prior to letting, bidders may obtain a free computer diskette or a computerized transfer of files (from the Engineer's office) that contains the earthwork information. If copies of the cross-sections in addition to, or instead of, the CD are requested, they will be available at the Engineer's office for borrowing by copying companies at the bidder's expense.

When working near aerial electrical lines or utility poles, comply with Federal, State and local regulations. For electrical lines and poles shown in the plans, if the lines need to be de-energized or if poles need to be braced, contact the electrical company. Work pertaining to de-energizing lines, bracing poles and other protective measures will not be paid by TxDOT.

Prevention of Migratory Bird Nesting

It is anticipated that migratory birds, a protected group of species, may try to nest on bridges, culverts, vegetation, or gravel substrate, at any time of the year. The preferred nesting season for

migratory birds is from February 15 through October 1. When practicable, schedule construction operations outside of the preferred nesting season. Otherwise, nests containing migratory birds must be avoided and no work will be performed in the nesting areas until the young birds have fledged.

Structures

Bridge and culvert construction operations can not begin until swallow nesting prevention is implemented, until after October 1 if it's determined that swallow nesting is actively occurring, or until it's determined swallow nests have been abandoned. If the State installed nesting deterrent on the bridges and culverts, maintain the existing nesting deterrent to prevent swallow nesting until October 1 or completion of the bridge and culvert work, whichever occurs earlier. If new nests are built and occupied after the beginning of the work, do not perform work that can interfere with or discourage swallows from returning to their nests. Prevention of swallow nesting can be performed by one of the following methods:

1. By February 15 begin the removal of any existing mud nests and all other mud placed by swallows for the construction of nests on any portion of the bridge and culverts. The Engineer will inspect the bridges and culverts for nest building activity. If swallows begin nest building, scrape or wash down all nest sites. Perform these activities daily unless the Engineer determines the need to do this work more frequently. Remove nests and mud through October 1 or until bridge and culvert construction operations are completed.

2. By February 15 place a nesting deterrent (which prevents access to the bridge and culvert by swallows) on the entire bridge (except deck and railing) and culverts.

No extension of time or compensation payment will be granted for a delay or suspension of work caused by nesting swallows. This work is subsidiary to the various bid items.

--Item 7--
The project's total disturbed area is 11.81 acres. The disturbed area in all project locations and Contractor project specific locations (PSL's), within 1 mile of the project limits, will further establish the authorization requirements for storm water discharges. The department will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. Obtain any required authorization from the TCEQ for any PSL's on or off the ROW. When the total area disturbed on the project and PSL's within 1 mile of the project exceeds 5 acres, provide a copy of the Contractor NOI for PSL's to the Engineer (to the appropriate MS4 operator when the project is on an off-state system route).

--Item 8--
Working days will be computed and charged in accordance with Article 8.3.A.1:5-Day work week.

The number of working days and interim milestones, if any, were calculated using a conceptual time determination schedule that assumes generic resources, production rates, sequences of construction and average weather conditions based on historic data. If requested, the Engineer will supply bidders a CD of the time determination schedule compatible with Primavera Project Planner software. The time determination schedule is provided for informational use only and is not intended for bidding or construction purposes. If the schedule is used for bidding or construction purposes, the bidder accepts the schedule and assumes the responsibility for verifying all aspects of the schedule. The department will not adjust the number of working days and milestones, if any, due to differences in opinion regarding any assumptions made in the preparation of the schedule or for errors, omissions or discrepancies found in the schedule.

Locate and reference with station and offset all manholes and valves within the construction area. Each manhole and valve shall be identified by its owner (SAWS, CPS, etc.). No roadwork will begin until this list has been submitted. Gas valves have to be accessible at all times, therefore; temp. CTB, material stock piles, etc. can not be placed over these valves.

Construct all manholes and valves to final pavement elevations prior to the final mat of ACP. If, between the final elevation adjustment and the final mat of ACP, the manholes and valves are going to be exposed to traffic, place temporary asphalt around the manhole and valve to provide a +/- 50:1 taper. The cost of elevation adjustment will be part of the manhole and valve work, and asphalt tapers are part of the ACP work.

As per the special provision to this item, working day charges will begin 90 calendar days after the date of the written authorization to begin work, or the first day of construction activity if work is initiated within the 90 day period.

--Item 9--
When approved, provide uniformed, off-duty law enforcement officers with marked vehicles during work that requires a lane closure. The officer in marked vehicles shall be located as approved to monitor or direct traffic during the closure. The method used to direct traffic at signalized intersections shall be as approved. Additional officers and vehicles may be provided when approved or directed.

--Item 100--
Begin clearing operations after trees and other areas of vegetation to be protected have been identified and approved. Install fencing around features to be protected as shown in the plans or directed. Coordinate all right of way clearing operations with the SW3P.

Trim and remove brush and trees as needed for construction operations. Obtain approval for proposed method of tree and brush trimming and removal. Vertical flailing equipment is not allowed. Treat damaged or cut branches, roots and/or stumps of all oak trees with a commercial tree wound dressing. Disinfect all pruning tools with a solution of 70% alcohol before moving from one tree to another. Unless otherwise approved remove all resulting vegetative debris from the ROW within 24 hours. The Engineer can stop all construction operations if the dressing, cut and removal requirements are not followed.

--Item 110--
Where excavation extends beyond a right of way fence, remove and replace the fence to a comparable condition.

--Item 160--
Approximately 2,575 CY of existing topsoil may be windrowed or stockpiled (as approved) for later use under this Item. Place erosion control measures for the stockpile and/or windrow.

--Item 161--
Approximately 2,575 CY of existing topsoil may be salvaged and windrowed or stockpiled (as approved) for later use as Compost Manufactured Topsoil (CMT). Place erosion control measures for the stockpile and/or windrow.

--Item 162--
Furnish and place block grass sod.

--Item 164--
Drill seeding of permanent grasses requires the use of approved grass seeding equipment capable of properly storing and metering the release of small seeds (such as Bermuda grass) separately from fluffy type seeds (such as bluestems). Equipment manufactured for planting grain crops is acceptable for planting temporary cool season seeds, but not for planting the permanent seed mix.

When drill seeding is required cultivate the area to a depth of 4 in. after the fertilizer has been applied and before placing the seed.

--Item 166--
To provide 100 lbs. of nitrogen per acre, the 23,000 SY's of topsoil and/or compost will require 475 lbs. (SY's/4840) (100) of nitrogen. The total lbs. of non-pay fertilizer required depend on the fertilizer's N/P/K blend selected by the Contractor.

--Item 168--
Apply vegetative watering as needed to supplement natural rainfall during the vegetation establishment period. Drought or other environmental conditions, as determined by the Engineer, may require the application of supplemental irrigation to be between the hours of 6PM. The estimated quantity is based on 1.3 GAL/SY per cycle.

--Item 300--
The asphalt binder used in the manufacture of the non-surface layers of hot mix asphaltic concrete, shall be PG 64-22.

The asphalt binder used in the manufacture of the hot mix asphaltic concrete surface layer shall be PG 64 -22.

--Item 302--
Previously tested aggregates found to contain excessive quantities of dust (more than 0.5 percent passing the No. 4 sieve) during precoating, stockpiling or hauling operations, may be rejected. Use Test Method Tex-200-F, Part I for testing.

Precoated Aggregate Type PE shall consist of crushed slag, crushed stone or natural limestone rock asphalt.

The Engineer will utilize the Ignition Oven Method (Tex 236-F) for aggregate gradation, with the option of utilizing belt or vacuum extraction gradation in the event the ignition oven malfunctions.

--Item 316--
Asphalt season will be year around, but meet sections 316.4.D.1 through 3.

Clean all concrete curbs, islands, medians, etc. that get coated with asphalt.

--Item 320--
Construct all longitudinal ACP joints adjacent to a travel lane with a joint maker device that will create a 3:1 to 6:1 taper. For placement of 2 inches or more, the device shall provide a maximum ½ inch vertical edge. Taper outside edges (next to the grass) or backfill (shoulder-up) the same day.

Use a material transfer device capable of transferring mix from the haul truck to the paver. Material transfer devices can include a pick up machine, such as a Lincoln 660 or similar.

--Item 340--
Table 6, in Item 340, Table 8 in Item 341 and Table 8 in Item 344, Hamburg Wheel Test Requirements tested in accordance with Tex-242-P are changed for PG 64-22 or lower and PG 70-22. Minimum number of passes at 0.5” Rut Depth, Tested at 122 degrees F will be 5,000 and 10,000 respectively.

Design all mixture types using a target laboratory-molded density of 96.5%.

R.A.P. (Department or Contractor owned) is allowed for ACP, but not for the surface mat.

The asphalt plant shall have truck scales as defined in Item 520. Give three weight tickets bearing the date, the truck number, the gross, net & tare weights to the truck driver for the State inspector at the spreading and finishing operation. Trucks may be required to weigh on public scales or portable platform scales to verify the weight of the ticket.

Submit a copy of the Tex 233-F production charts on a weekly basis. At the end of the ACP work, provide all originals.

Crushing of aggregate for hot mix and immediate use for production of the mix is not allowed. Stockpile the aggregate until enough material is available for five days of production unless prior approval is provided. Hold a pre-placement meeting one month prior to the placement of the hot mix.

The main purpose of hot mix cores taken by the State are for payment calculations. If (for quality control purposes) the core information is needed sooner, take additional cores.

Do not use diesel or solvents as asphalt release agents in production, transportation, or construction. A list of approved asphalt release agents is available from the District Laboratory.

No more than one hot mix lot will be open for any specific type of hot mix, unless authorized. After a lot is open and the Contractor gets approval to change plants, the previous lot will be closed and a new lot will be opened. The numbering for the lots produced at the new plant will start with No. 1. If allowed to switch back to the original or previous plant, the next lot from that plant will resume numbering sequentially from the last lot produced by that plant.

Schedule lay-down placement where uneven travel lanes are minimized and eliminated weekly.

Minimum Roadway Placement Temperature

--Item 340--
Place mixture when the roadway surface temperature is equal to or higher than listed in Table 1 unless otherwise approved or shown on the plans. Measure the roadway surface temperature with a handheld infrared thermometer. Placement may be allowed to begin prior to the roadway surface reaching the required temperature if conditions are such that the roadway surface will reach the required temperature within 2 hrs. of beginning placement operations. Place mixtures only when weather and moisture conditions of the roadway surface are suitable in the opinion of the Engineer.

Table 1
Minimum Pavement Surface Temperatures

Specification Item Number	High Temperature Binder Grade	Minimum Pavement Surface Temperatures in Degrees Fahrenheit *	
		Subsurface Layers or Night Paving Operations	Surface Layers Placed in Daylight Operations
Items 340, 341, & 344	PG 64	45	50
	PG 70	55	60
	PG 76	60	60
Items 342 and 346 SS 3000 & SS 3001	PG 76	65	70
	Asphalt Rubber (A-R)	65	70

* Except for PG 64, may pave at temperatures 10º F lower than the values shown in Table 1when utilizing a paving process or equipment that eliminates thermal segregation. In these cases, use either an infrared bar attached to the paver, or a hand held thermal camera, or a hand held infrared thermometer operated in accordance with Text Method 244-F to demonstrate that the uncompacted mat has no more than 10º F of thermal segregation.

--Item 354--
Retain planed material.

Take precaution to avoid damage to existing bridge decks and armor joints. Repair any damage to the bridge decks and/or armor joints as approved.

--Item 420--
Mass concrete will be measured as a plan quantity item.

--Item 421 & 520--
Use an automated ticket that contains the same information as TxDOT's ticket. Submit the ticket for approval prior to use. The concrete producer will contact the District Laboratory or the Engineer’s Office (outside the San Antonio area) to inform TxDOT of scheduled structural concrete batching. Structural concrete includes bridge drill shafts, columns, caps, abutments, deck or top slabs of direct traffic culverts.

Air-entrained concrete is not required.

--Item 423--
The backfill material for pre cast retaining walls shall be approved before placement. Build stockpile(s) in lifts not to exceed 2 feet and a minimum working face of not less than 10 feet, but not more than 20 feet.

For MSE walls, provide a system from one of the following suppliers:

Reinforced Earth Walls
The Reinfored Earth Company
1331 Airport Freeway, Suite 302
Euless, Texas 76040-4150
(817) 283-5503

Reinforced Soil Embankment Walls
Texas Welded Wire, Inc
645 W Hurst Blvd
Hurst, Texas, 7605
(817) 282-4560

Retained Earth Walls
Foster Geotechnical
901 N. Hwy. 77
Hillsboro, Texas, 76645
(254) 580-9100

Stabilized Earth Wall
T&B Structural Systems, Inc.
6800 Manhattan Blvd., Suite 303
Fort Worth, Texas 76120
817-280-9858

Strengthened Earth Walls
Hanson Concrete Products
3500 Maple Ave
Dallas, Texas, 75219
(214) 525-5877

Strengthened Soil Walls
Shaw Technologies, Inc
P.O. Box 271448
Flower Mound, Texas 75027
(972) 490-1924

Tensar Retaining Wall System
Tensar Earth Technologies, Inc
5775-B Glenridge Drive
Atlanta, Georgia, 30328
(404) 250-1290

Tricon Retained Soil Walls
Tricon Precast, Inc
15055 Henry Rd
Houston, Texas, 77060
(713) 931-9832

VP Wall System
Valley Prestress Products, Inc.
P.O. Box 1367
Mission, Texas 78573
(956) 584-5701

MSE Plus
Ssl Construction Products
4740 Scotts Valley Drive, Suite E
Scotts Valley, California 95066
831-430-9300

TxDOT does not allow the use of experimental systems on projects with over 50,000 square feet walls over 25 ft. tall, or walls supporting or immediately adjacent to interstate highways.

--Item 427--
Provide special surface finish surface area I to MSE wall panels as shown in Retaining Wall Details.

--Item 428--
Provide a class 1 surface treatment to the following elements: bridge deck, approach slab, and inside face of railing.

--Item 432--
In all riprap slopes, provide 3 inch diameter weep holes at 10 foot maximum spacing and backed with loose graded gravel or crushed stone and galvanized hardware cloth.

In areas where guard fence posts are to be placed in riprap, the riprap shall have an 18 inch +/- blocked out area (round or square).

--Item 449--
The pipe joint compound used to coat the threads of anchor bolts prior to installation of nuts when erecting a high mast pole shall be an electrically conducting protective thread lubricant compound (Crouse-Hinds TL-2, 0z/Gedney STL, Thomas & Betts Kopr-Shield).

--Item 454--
For Asphaltic-Plug Expansion Joints, the following suppliers are approved:

FlexAble Bridge Joint System
Deery American Corporation
P.O. Box 4099
Grand Junction, CO. 81502
800-227-4059

Matrix 502 Asphalt Plug
D.S. Brown Co.
300 E. Cherry St.
North Baltimore, OH. 45872
419-257-3561

Thorma-Joint
Dwight L. Lee & Associates
P.O. Box 1357
Keller, TX. 76244
817-379-0525

Wabo-Expandex
Degussa
3011 Heatherpark Drive
Kingwood, TX. 77345
713-392-4833

APJ Asphalt Plug Expansion Joint System
Wyoming Equipment Sales
281 West Sixth Street
West Wyoming, PA. 18644-0287
570-693-2810

--Item 462--
Use concrete aggregate with two sacks of Portland cement per cubic yard for fill between pre-cast boxes.

--Item 500--
"Materials on Hand" payments will not be considered in determining percentages for mobilization payments.

Before work begins, provide one (1) digital camera compatible with the above computer for photo download and with:

4.0 Mega pixel resolution or better
3x Optical/4x digital/12x total zoom or better
2.5” Color LCD monitor screen or larger
2 Rechargeable lithium-ion batteries and battery charger
1 Memory card with 512 Mb memory or greater
1 USB Memory card reader

Equipment (hard/software, programs, camera, etc.) will be returned after project is completed. This requirement is subsidiary to this Item.

--Item 502--
Place standard markings no later than 14 days after surface treatment operations are completed.

When advanced warning flashing arrow panels and/or changeable message sign is specified, have one standby unit in good condition at the job site.

Treat the pavement drop-offs as shown in the TCP.

After written notification, the time frame to provide properly maintained signs and barricades before considered in non-compliance is 48 hours regardless of the day of the notification.

Moving an existing sign to a temporary location is subsidiary to this Item. Installations with permanent supports at permanent locations will be paid for under the applicable bid item (s).

The contractor shall notify the engineer of impending/upcoming lane closures and place portable, changeable message boards at least:

(1) 48 hours in advance of closures involving one lane on mainlane and/or frontage road.

(2) 168 hours in advance of closures involving multiple lanes on mainlane and/or frontage road.

(3) 96 hours in advance of closures involving lanes within 500 feet of an intersection.

Unless otherwise noted in the plans and/or as directed by the engineer, lane closures shall be limited according to the following restrictions.

US 90 MAINLANE RESTRICTIONS:

(1) No closures will be permitted between 8:00 pm December 15 and 4:00 am January 2.

(2) No closures will be permitted between 6:00 am Wednesday to 10:00 pm Sunday during the Thanksgiving Day holiday.

(3) No closures will be permitted between 6:00 am Friday to 10:00 pm Monday during the Memorial Day and Labor Day holidays.

(4) No closures will be permitted on Saturday or Sunday when July 4th falls on a Friday or Monday.

(5) No closures will be permitted between 6:00 am and 8:00 pm Monday through Saturday.

(6) No closures will be permitted between 8:00 pm Friday to 6:00 am Sunday.

(7) At least two through mainlanes in each direction must be open between 8:00 pm and 10:00 pm Sunday through Thursday.

(8) At least one through mainlane must be open between 10:00 pm and 6:00 am Sunday through Friday.

Avoid placing stockpiles within the roadway's horizontal clear zone. If a stockpile is placed within the clear zone, address in accordance with the MUTCD.

Do not place barricades, signs, or any other traffic control devices where they interfere with sight distance at driveways or side streets.

When approved or directed, hire off-duty peace officers to assist in traffic control. For reimbursement, the invoice must show the officer's name and badge number, and date the police office was utilized. Reimbursement will be for the officer's time and not for coordination or scheduling fees.

--Item 506--

It is not anticipated that erosion control devices will be needed. However; in the event devices are needed, the SW3P shall consist of the control measures approved. Depending on the type and amount of work, payment will be handled with the Force Account Procedure, or by individual pay items.

--Item 512--

New Single Slope or F-Shape CTB (cast in accordance with the Standard Sheets in the plans) may be furnished or the same pre-used shapes (that meet the requirements of this Item) may be furnished. New Safety Shape (New-Jersey) CTB is not allowed, but pre-used New-Jersey (that meets the requirements of this Item) may be furnished. More than one type may be furnished but do not mix the types when placed along the roadway.

--Item 529--
Class "C" concrete is required for machine extruded curb.

Curb inlets and extensions are based on an exposed curb height of 7 inches. The roadway curb height and shape will be transitioned to the inlet's curb with a 40: 1 taper.

--Item 531--
The curb ramp truncated domes will be terra cotta.

The curb ramp locations shown in the plans have taken into account the geometric features of the intersection, traffic signals, and the pavement markings. If anything changes during construction, the location of curb ramps must be adjusted to ensure they meet TAS requirements.

--Item 540--
MBGF posts in the center median of US 90 shall be steel posts with blockouts. All other MBGF posts shall be round with domed tops, and not painted. If 10 or less timber posts are needed, they may be purchased locally and will be accepted by visual inspection.

Guard fence posts placed in proposed and/or existing areas of riprap, sidewalks or other concrete shall have an 18 inch +/- (square or round) block out in the concrete. After the posts are installed, the blocked out area shall be topped off with 4 inches of low strength grout/mortar consisting of about 1 sack of cement per cubic yard of mix.

When connecting a Thrie-Beam to a concrete wingwall, bridge rail, CTB, etc., drill the holes for bolt placement using rotary or core type equipment. Use a core type drill when reinforcing steel is encountered. Do not use percussion or impact drilling. Repair damage to the concrete and spalls exceeding ½" from the edge of the hole.

--Item 542--
Salvage all undamaged/acceptable radius guardrail and deliver to the TxDOT maintenance section yard.

--Item 585--
Use Surface Test Type A to evaluate ride quality of travel lanes.

--Item 610--
All roadway illumination assemblies shall be from the pre-qualified Material Producers List-Roadway Illumination and Electrical Supplies located at link:
http://www.dot.state.tx.us/business/producer_list.htm

Ballast/capacitors removed from the light assembly, will remain the property of the State. Assume all ballast/capacitors contain Polychlorinated Biphenyl (PCB), unless a notation appears on the outside of the unit that specifies it does not contain PCB's. All ballast/capacitors with PCB's shall be placed in 55 gallon open top drum in accordance with Department of Transportation (DOT) specifications. Place six (6) inches of sawdust or other absorbent material in the bottom of the drum. Furnish and place a DOT approved PCB warning label on the outside of the drum. Do not fill a drum more than ¾ of capacity. Avoid rupturing the ballast/capacitor(s). If a ballast/capacitor is ruptured, use proper procedures, specialist trained staff and personal protective equipment for the clean-up operations.

The lamps in light fixtures may contain hazardous levels of mercury, halide, and sodium vapors. Observe and comply with all federal, state and local laws, ordinances and regulations regarding the management of these lamps. Prevent the breakage of the lamps. At a minimum, package all lamps removed from the light fixture(s) in a container that minimizes the breakage of the lamps. Broken lamps shall be collected in a sealed plastic bag (i.e. Ziploc). Store broken and unbroken lamps in separate containers. Furnish a suitable container and attach a label stating "Universal Waste Lamps" on the container. Write the date the first lamp was placed in the container on the "Universal Waste Lamp" label. Within one (1) week after the first lamp is placed in a container, notify the Engineer. The lamps and PCB containing ballast/capacitors, placed in properly labeled containers, will remain the property of the State. Place the container in an area where it is protected from damage and the elements. The Engineer will make arrangements to collect, transport, and dispose/recycle the container. The ballast/capacitor and lamp's removal and storage is subsidiary to this item.

For high pressure sodium lamps, meet ANSI C78 requirements and will be the type that extinguish at the end of usable lamp life and remains extinguished without cycling. 400 watt lamps shall contain less than 4.0 MG of mercury. 250 watt lamps shall contain less than 3.0 MG of mercury. Lamps shall be lead free. Lamps shall pass the Federal Toxic Characteristic Leachate Procedure (TCLP). Lamp examples: OSRAM-Sylvania LU400/ECO Plus.

--Item 613--
Use an electrically conducting protective thread lubricant compound (Crouse-Hinds TL-2, 0Z/Gedney STL, Thomas & Betts Kopr-Shield) for the pipe joint compound to coat the threads of the anchor bolts, prior to installation of nuts.

--Item 614--
All High Mast Illumination Assemblies shall be from the pre-qualified Materials Producers List-Roadway Illumination and Electrical Supplies located at link:

http://www.dot.state.tx.us/business/producer_list.htm

--Item 618--
It might be necessary to cut concrete for placement of conduit. Saw cut existing concrete, remove the concrete from the steel reinforcement (bars or fabric) and bend the steel to install the conduit. After the conduit has been placed, bend the steel back to its original position and back-fill the trench with an approved concrete. This work is subsidiary to this Item.

The conduit depth for illumination on City of San Antonio streets is 36 inches.

--Item 620--
Provide breakaway electrical connectors for breakaway poles from the pre-qualified Materials Producers List- Roadway Illumination and Electrical Supplies located at link:
http://www.dot.state.tx.us/business/producer_list.htm

--Item 624--
Legibly imprint the ground box cover with the words "Danger High Voltage" as required by the “Electrical Details” State Standard Sheet(s). In addition, imprint "Traffic Signal", "TMS", "Illumination", or whatever other system will be housed in the ground box. The ground box locations shown on the plans are approximate and can be adjusted to better fit field conditions when approved.

--Item 628--
Make all arrangements for electrical service, and compliance with local standards and practices for proper installations.

--Item 644--
The wedge anchor system shown on State Standard Sheet SMD (TWT)-02 and the expanded foam foundation covered by note no. 11 on the SMD (SLIP-2)-02 are not allowed. Use the “Roll Pin” shown on SMD (SLIP-1)-02.

--Item 666 & 6110--
If TY II material is used (vs. an acrylic or epoxy) as the sealer for the TY I markings, place the TY 11 a minimum of 14 calendar days (to provide adequate curing) before placing the TY I markings.

--Item 672--
Place all adhesive material directly from the heated dispenser to the pavement. Do not use portable or non-heated containers. Use adhesive of sufficient thickness so that when the marker is pressed into the adhesive, 1/8" or more adhesive will remain under 100% of the marker. The adhesive should extend not less than 1/2" but not more than 1 1/2" beyond the perimeter of the marker.

--Item 677--
Obtain approval before using the mechanical method for the elimination of existing thermoplastic pavement markings.

CONTROL : 0024-08-122, ETC
PROJECT : BR 2006(491), ETC
HIGHWAY : US 90
COUNTY : BEXAR

TEXAS DEPARTMENT OF TRANSPORTATION

GOVERNING SPECIFICATIONS AND SPECIAL PROVISIONS

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT ARE IDENTIFIED AS FOLLOWS:

STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION JUNE 1, 2004. STANDARD SPECIFICATIONS ARE INCORPORATED INTO THE CONTRACT BY REFERENCE.

ITEMS 1 TO 9 INCL., GENERAL REQUIREMENTS AND COVENANTS
ITEM 100 PREPARING RIGHT OF WAY (103)
ITEM 104 REMOVING CONCRETE
ITEM 105 REMOVING STABILIZED BASE AND ASPHALT PAVEMENT
ITEM 106 OBLITERATING ABANDONED ROAD
ITEM 110 EXCAVATION (132)
ITEM 132 EMBANKMENT (100)(204)(210)(216)(400)
ITEM 160 TOPSOIL
ITEM 161 COMPOST (160)
ITEM 162 SODDING FOR EROSION CONTROL (166)(168)
ITEM 164 SEEDING FOR EROSION CONTROL (162)(166)(168)
ITEM 168 VEGETATIVE WATERING (520)
ITEM 247 FLEXIBLE BASE (105)(204)(210)(216)(520)
ITEM 275 CEMENT TREATMENT (ROAD-MIXED) (132)(204)(210)(216)(247) (300)(310)(520)
ITEM 310 PRIME COAT (300)(316)
ITEM 316 SURFACE TREATMENTS (210)(300)(302)(520)
ITEM 341 DENSE-GRADED HOT-MIX ASPHALT (QC/QA) (210)(300)(301)(320) (520)(585)
ITEM 354 PLANING AND TEXTURING PAVEMENT
ITEM 360 CONCRETE PAVEMENT (300)(420)(421)(438)(440)(529)(585)
ITEM 400 EXCAVATION AND BACKFILL FOR STRUCTURES (132)(401)(420) (421)
ITEM 402 TRENCH EXCAVATION PROTECTION
ITEM 416 DRILLED SHAFT FOUNDATIONS (420)(421)(440)(448)
ITEM 420 CONCRETE STRUCTURES (400)(421)(427)(438)(440)(441)(448)
ITEM 422 REINFORCED CONCRETE SLAB (420)(421)(424)(426)(430)(440)
ITEM 423 RETAINING WALLS (110)(132)(400)(420)(421)(424)(440)(445) (458)(556)
ITEM 425 PRECAST PRESTRESSED CONCRETE STRUCTURAL MEMBERS (420)

(421)(424)(426)(427)(434)(440)(442)

ITEM 428 CONCRETE SURFACE TREATMENT (427)

ITEM 432 RIPRAP (247)(420)(421)(427)(431)(440)

ITEM 442 METAL FOR STRUCTURES (441)(445)(446)(447)(448)(449)

ITEM 450 RAILING (420)(421)(424)(440)(441)(442)(445)(446)(448)(540)

ITEM 454 BRIDGE EXPANSION JOINTS (429)(442)

ITEM 462 CONCRETE BOX CULVERTS AND STORM DRAINS (400)(420)(421)(424)(427)(440)(464)(476)

ITEM 464 REINFORCED CONCRETE PIPE (400)(476)

ITEM 465 MANHOLES AND INLETS (400)(420)(421)(440)(471)

ITEM 466 HEADWALLS AND WINGWALLS (400)(420)(421)(430)(440)(464)

ITEM 467 SAFETY END TREATMENT (400)(420)(421)(430)(432)(440)(445)(460)(464)

ITEM 496 REMOVING STRUCTURES (430)(497)

ITEM 500 MOBILIZATION

ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING

ITEM 504 FIELD OFFICE AND LABORATORY

ITEM 506 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS (432)(556)

ITEM 508 CONSTRUCTING DETOURS

ITEM 512 PORTABLE CONCRETE TRAFFIC BARRIER (420)(421)(424)(440)(442)

ITEM 529 CONCRETE CURB, GUTTER, AND COMBINED CURB AND GUTTER (360)(420)(421)(440)

ITEM 530 INTERSECTIONS, DRIVEWAYS, AND TURNOUTS (247)(260)(263)(275)(276)(292)(316)(330)(334)(340)(360)(421)(440)

ITEM 531 SIDEWALKS (104)(360)(420)(421)(440)(530)

ITEM 536 CONCRETE MEDIANS AND DIRECTIONAL ISLANDS (420)(421)(427)(440)(529)

ITEM 540 METAL BEAM GUARD FENCE (421)(445)(529)(542)(544)

ITEM 542 REMOVING METAL BEAM GUARD FENCE

ITEM 544 GUARDRAIL END TREATMENTS

ITEM 545 CRASH CUSHION ATTENUATORS (421)

ITEM 550 CHAIN LINK FENCE (421)(445)

ITEM 610 ROADWAY ILLUMINATION ASSEMBLIES (421)(441)(442)(445)(446)(449)(616)(620)

ITEM 613 HIGH MAST ILLUMINATION POLES (421)(441)(442)(445)(449)(618)

ITEM 614 HIGH MAST ILLUMINATION ASSEMBLIES (441)(442)(445)(446)(616)(620)

ITEM 618 CONDUIT (400)(445)(476)(622)

ITEM 620 ELECTRICAL CONDUCTORS

ITEM 624 GROUND BOXES (421)(440)

ITEM 628 ELECTRICAL SERVICES (441)(445)(449)(618)(620)(627)(656)

ITEM 636 ALUMINUM SIGNS (643)

ITEM 644 SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES (421)(440)(441)(442)(445)(634)(636)(643)(656)

ITEM 647 LARGE ROADSIDE SIGN SUPPORTS AND ASSEMBLIES (421)(440)(441)(442)(445)(643)

ITEM 650 OVERHEAD SIGN SUPPORTS (416)(420)(421)(441)(442)(445)(449)(618)

ITEM 658 DELINEATOR AND OBJECT MARKER ASSEMBLIES (420)(421)(441)(445)

ITEM 662 WORK ZONE PAVEMENT MARKINGS (666)(668)(672)(677)
ITEM 668 PREFABRICATED PAVEMENT MARKINGS
ITEM 672 RAISED PAVEMENT MARKERS (677)(678)
ITEM 677 ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS (300) (302)(316)
ITEM 678 PAVEMENT SURFACE PREPARATION FOR MARKINGS

SPECIAL PROVISIONS: SPECIAL PROVISIONS WILL GOVERN AND TAKE PRECEDENCE OVER THE SPECIFICATIONS ENUMERATED HEREON WHEREVER IN CONFLICT THEREWITH.

REQUIRED CONTRACT PROVISIONS, FEDERAL-AID CONSTRUCTION CONTRACTS (FORM FHWA 1273, MARCH, 1994)
WAGE RATES
SPECIAL PROVISION "SCHEDULE OF LIQUIDATED DAMAGES" (000--1002)
SPECIAL PROVISION "PARTNERING" (000---002)
SPECIAL PROVISION "NOTICE TO ALL BIDDERS" (000---003)
SPECIAL PROVISION "NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY" (000---004)
SPECIAL PROVISION "DISADVANTAGED BUSINESS ENTERPRISE IN FEDERAL-AID CONSTRUCTION" (000---461)
SPECIAL PROVISION "STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS" (000---006)
SPECIAL PROVISION "ON-THE-JOB TRAINING PROGRAM" (000--1001)
SPECIAL PROVISION "CERTIFICATION OF NONDISCRIMINATION IN EMPLOYMENT" (000---009)
SPECIAL PROVISION "DEPARTMENT DIVISION MAILING AND PHYSICAL ADDRESS" (000---011)
SPECIAL PROVISION "IMPORTANT NOTICE TO CONTRACTORS" (000--1144)
SPECIAL PROVISION TO ITEM 1 (001---005)
SPECIAL PROVISION TO ITEM 3 (003---020)
SPECIAL PROVISION TO ITEM 4 (004---008)
SPECIAL PROVISION TO ITEM 5 (005---004)
SPECIAL PROVISION TO ITEM 6 (006---030)
SPECIAL PROVISIONS TO ITEM 7 (007---213)(007---297)
SPECIAL PROVISION TO ITEM 9 (009---009)
SPECIAL PROVISION TO ITEM 100 (100---001)
SPECIAL PROVISION TO ITEM 161 (161---001)
SPECIAL PROVISION TO ITEM 247 (247---020)
SPECIAL PROVISION TO ITEM 360 (360---003)
SPECIAL PROVISION TO ITEM 416 (416---001)
SPECIAL PROVISION TO ITEM 420 (420---003)
SPECIAL PROVISION TO ITEM 421 (421---024)
SPECIAL PROVISION TO ITEM 434 (434---003)
SPECIAL PROVISION TO ITEM 440 (440---001)
SPECIAL PROVISION TO ITEM 441 (441---002)
SPECIAL PROVISION TO ITEM 442 (442---005)
SPECIAL PROVISION TO ITEM 447 (447---002)
SPECIAL PROVISION TO ITEM 465 (465---001)
SPECIAL PROVISION TO ITEM 500 (500---002)
SPECIAL PROVISION TO ITEM 502 (502---022)
SPECIAL PROVISION TO ITEM 506 (506---010)

SPECIAL PROVISION TO ITEM 512 (512---001)
SPECIAL PROVISION TO ITEM 620 (620---001)
SPECIAL PROVISION TO SPECIAL SPECIFICATION ITEM 6110 (6110--008)

SPECIAL SPECIFICATIONS:

ITEM 6110 REFLECTORIZED PAVEMENT MARKINGS WITH RETROREFLECTIVE REQUIRMENTS (6629)
ITEM 6629 MOBILE RETROREFLECTIVITY DATA COLLECTION FOR PAVEMENT MARKINGS
ITEM 6834 PORTABLE CHANGEABLE MESSAGE SIGN
ITEM 6943 REMOVE HIGH MAST ILLUMINATION
ITEM 6965 REMOVE AND RELOCATE EXISTING TRAFFIC MANAGEMENT EQUIPMENT

GENERAL: THE ABOVE-LISTED SPECIFICATION ITEMS ARE THOSE UNDER WHICH PAYMENT IS TO BE MADE. THESE, TOGETHER WITH SUCH OTHER PERTINENT ITEMS, IF ANY, AS MAY BE REFERRED TO IN THE ABOVE-LISTED SPECIFICATION ITEMS, AND INCLUDING THE SPECIAL PROVISIONS LISTED ABOVE, CONSTITUTE THE COMPLETE SPECIFICATIONS FOR THIS PROJECT.

SPECIAL SPECIFICATION

6834

Portable Changeable Message Sign

1. **Description.** Furnish, operate, and maintain portable trailer mounted changeable message sign (PCMS) units.

2. **Materials.** Furnish new or used material in accordance with the requirements of this Item and the details shown on the plans. Provide a self-contained PCMS unit with the following:

   - Sign controller
   - Changeable Message Sign
   - Trailer
   - Power source

   Paint the exterior surfaces of the power supply housing, supports, trailer, and sign with Federal Orange No. 22246 or Federal Yellow No. 13538 of Federal Standard 595b, except paint the sign face assembly flat black.

   A. Minimum Luminance Requirements. All PCMS units shall meet the following luminance requirements measured at the character level in candela as is published in Report 4940-2, "Photometric Requirements for Portable Changeable Message Signs," conducted by the Texas Transportation Institute. Luminance will be tested in accordance with Tex-880.

   - Minimum Daytime Character Luminance of 4000cd/m2 with a contrast ratio of 5.
   - Minimum Nighttime Character Luminance of 30/cd/m2.

   B. Sign Controller. Provide a controller with permanent storage of a minimum of 75 pre-programmed messages. Provide an external input device for random programming and storage of a minimum of 75 additional messages. Provide a controller capable of displaying up to 3 messages sequentially. Provide a controller with adjustable display rates. Enclose sign controller equipment in a lockable enclosure.

   C. Changeable Message Sign. Provide a sign capable of being elevated to at least 7 ft. above the roadway surface from the bottom of the sign. Provide a sign capable of being rotated 360° and secured against movement in any position.

   Provide a sign with 3 separate lines of text and 8 characters per line minimum. Provide a minimum 78 in. high x 126 in. wide sign housing. Provide a minimum 18 in. character height. Provide a 5 x 7 character pixel matrix. Provide a message visibility distance of 750 ft. Provide for manual and automatic dimming light sources.

   The following are descriptions for 3 screen types of PCMS:

- **Character Modular Matrix.** This screen type comprises of character blocks.
- **Continuous Line Matrix.** This screen type uses proportionally spaced fonts for each line of text.
- **Full Matrix.** This screen type uses proportionally spaced fonts, varies the height of characters, and displays simple graphics on the entire sign.

D. Trailer. Provide a 2 wheel trailer with square top fenders, 4 leveling jacks, and trailer lights. Do not exceed an overall trailer width of 96 in. Shock mount the electronics and sign assembly.

E. Power Source. Provide a diesel generator, solar powered power source, or both. Provide a backup power source as necessary.

F. Cellular Telephone. When shown on the plans, provide a cellular telephone connection to communicate with the PCMS unit remotely.

3. Construction. Place or relocate PCMS units as shown on the plans or as directed. The plans will show the number of PCMS units needed, for how many days, and for which construction phases.

Maintain the PCMS units in good working condition. Repair damaged or malfunctioning PCMS units as soon as possible. PCMS units will remain the property of the Contractor.

4. Measurement. This Item will be measured by each PCMS or by the day used. All PCMS units shall be set up on a work area and operational before a calendar day can be considered measurable. When measurement by the day is specified, a day shall be measured for each PCMS set up and operational on the worksite.

5. Payment. The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Portable Changeable Message Sign." This price is full compensation for PCMS units; set up; relocating; removing; replacement parts; batteries (when required); fuel, oil, and oil filters (when required); cellular telephone charges (when required); software; and equipment, materials, tools, labor, and incidentals.